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(54) AGGREGATE OF ELECTRONIC COOLING ELEMENT

(57)Abstract:

PURPOSE: To enable heat transmission by an extremely small heat resistance by compressing a thin plate held between heat conductors from both sides making copper bands face each other with a semiconductor between in parallel with each other shifting a half pitch and by welding the semiconductor and the copper band by solder, etc.

CONSTITUTION: An aggregate 1 of a half-completed electronic cooling element and a polyimide sheet 2-based polyimide sheet 13 wherein a copper band 11 alone is adhered by adhesive are combined to make copper bands 5, 11 face each other with semiconductor elements 6, 7 between in parallel with each other shifting a half pitch. In the state, a heat conductor 16 at a HOT side and a heat conductor 17 at a COLD side are compressed by a bolt 18 and a nut 19 and a heat conductor 15 at a side of the polyimide sheet 13 is heated to melt solder. Thereby, heat can be transmitted by an extremely small heat resistance to fluid at the sides of HOT and COLD whereto heat is transmitted.

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